

**Springs**  
**A Significant Assessment Issue**  
**Re: Loss of biodiversity**  
**11/15/2016**

**Grand Canyon Trust**

**Significant Issue**

Springs are where groundwater emanates onto the ground surface, often flowing, sometimes simply seeping. Springs occupy a minute portion of Intermountain West landscapes, but are significant contributors to water flows, biodiversity and riparian areas.

1. **Springs-dependent species.** Although generally poorly studied, numerous species are dependent for a portion of all their lives on springs (see Springs Stewardship Institute 2016).
2. **Water quality.** Springs may be the headwaters of creeks and streams, often providing cool, clear water.
3. **Wet meadows, fens, headwaters, riparian areas.** Springs, themselves rare habitats, produce additional rare and uncommon Colorado Plateau habitats, which provide for high biodiversity

Springs, a tiny portion of the landscape, are vulnerable:

1. **Vulnerable to global warming.** While some springs usher forth water that has traveled hundreds of years, others are more directly connected to aboveground precipitation and are susceptible to reduced flow or disappearance with extended drought.
2. **Vulnerable to underground mining.** As has been reported by the MLSNF on Wildcat Knolls, some springs have disappeared into cracks opened by the Greens Hollow longwall mining operation. The loss of every spring is a loss of surface water for wildlife and humans alike.
3. **Vulnerable to trampling by ungulates and/or humans.** Most springs are of small size, making possible the obliteration of their source habitats and/or the spring seeps/runs possible.
4. **Vulnerable to development.** Because a spring can serve as a faucet for watering livestock, community drinking water, or other human uses, the majority of springs may functionally disappear as habitat through human development.

## Information Provided

1. Grand Canyon Trust. 2016. Manti-La Sal NF Springs Reports [A summary of 46 springs assessments]
2. Grand Canyon Trust. 2016. Assessment: Eleven La Sal Mountain Springs, August 9-11, 2016
3. Grand Canyon Trust. 2016. Assessment: Fifteen Elk Ridge Springs, June 27-29, 2016
4. Semester in the West, Whitman College. 2016. [Ten springs assessments in La Sal Mountains; ten springs assessments on Ferron-Price Ranger District].
5. Springs Stewardship Institute. 2016. [What are Springs-Dependent Species?](#)
6. Grand Canyon Trust. 2015. Map and database of springs on Elk Ridge (Monticello Ranger District).

## Assessment Needed

Due to their significance as an uncommon habitat on the forest, the MLSNF needs to assess:

1. Estimate the number of springs on the MLSNF, including the proportion that are
  - a. Unfenced
  - b. Fenced with an intact fence
  - c. Fenced with an unmaintained fence
  - d. Developed
  - e. Undeveloped
  - f. Moderately to highly trampled
2. Discuss what MLSNF knows about
  - a. Loss of springs to mining
  - b. Flow reductions
  - c. Springs that have disappeared